

MULTI MILLET BASED INSTANT THERAPEUTIC FOODS

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Building Institutions for Generations

Multi Millet Based Instant Therapeutic Foods



**“Scaling up of small millet post harvest and nutritious food products”
(CIFSRF Phase-2)**

**POST HARVEST TECHNOLOGY CENTRE
AGRICULTURAL ENGINEERING COLLEGE AND RESEARCH INSTITUTE
TAMIL NADU AGRICULTURAL UNIVERSITY
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Introduction

Therapeutic foods are foods designed for specific, usually nutritional, therapeutic purposes as a form of dietary supplement. Therapeutic foods are made of a mixture of protein, carbohydrate, lipid and vitamins and minerals. Therapeutic foods are usually produced by grinding all ingredients together and mixing them. Consuming predominantly plant based diets reduces the risk of developing obesity, diabetes, cardiovascular diseases, and some forms of cancer. Plant based diets are high in vegetables and fruits, whole grains, pulses, nuts and seeds and have only modest amounts of meat and dairy.

Millets were found to have high nutritive value and comparable to that of major cereals such as wheat and rice. In addition to their nutritive value, several potential health benefits such as preventing cancer, cardiovascular diseases and diabetes, reducing tumour incidence, lowering blood pressure, risk of heart disease, cholesterol and rate of fat absorption, delaying gastric emptying and supplying gastrointestinal bulk were reported for millets. Millets are accepted a functional food and nutraceuticals because they provide dietary fibres, energy, proteins, minerals, vitamins and antioxidants required for human health.

INSTANT MILLET MIXES

Preparation of millets

- ❖ Clean, wash and pearl the millets.
- ❖ Dry the grains in a cabinet drier at 60°C for six hours
- ❖ Pack the dried grains in airtight bags/ containers

Preparation of dehydrated vegetables

- ❖ Select fresh and firm vegetables.
- ❖ Wash the vegetables in running tap water.
- ❖ Cut the vegetables into small pieces of uniform size.
- ❖ Steam blanch all the vegetables for 3-5 minutes except onions and tomatoes.
- ❖ Dry all the vegetables in cabinet drier at 60°C for 6 hours separately.
- ❖ Pack the dehydrated vegetables separately in air tight bags/containers.
- ❖ Use as required for the recipe.

1. MULTI MILLET DRUMSTICK LEAVES/FENUGREEK LEAVES DOSA MIX



Ingredients

Finger millet, Kodo millet, Little millet, Barnyard millet flour	– 650 g
Black gram dhal flour	– 270 g
Drumstick leaves/ fenugreek leaves (Dried)	– 20 g
Fenugreek seeds	– 20 g
Cumin seeds	– 10 g
Chilli powder	– 20 g
Curry leaves (Dried)	– 10g
Salt	– As required

Instant Mix

- Mix all ingredients thoroughly.
- Pack in airtight bags/containers.

Method

- Add the contents of mix into a bowl, pour water and mix well.
- Allow it to ferment for 2 hours.
- Apply oil on hot dosa tava, pour batter and spread evenly.
- Cook till crisp dosa is obtained.
- Serve hot with chutney.

2. MULTI MILLET DRUMSTICK LEAVES CHAPATTI MIX



Ingredients

Foxtail millet, Kodo millet, Little millet, Barnyard millet flour	- 490 g
Wheat flour	- 490 g
Drumstick leaves (Dried)	- 20 g

Instant Mix

- Mix all ingredients thoroughly.
- Pack in airtight bags/containers.

Method

- Add salt and water to the instant mix and knead it into soft dough.
- Make round balls and roll flat.
- Toast the chapatti on a preheated pan.
- Serve hot with any curry or gravy..
- Serve hot with chutney.

3. MULTI MILLET VEGETABLE ROTTI MIX



Ingredients

Foxtail millet, Kodo millet, Little millet, Barnyard millet flour	– 440 g
Rice flour	– 250 g
Onion (Dried)	– 200 g
Beans (Dried)	– 20 g
Carrots (Dried)	– 20 g
Green chilli powder	– 20 g
Curry leaves (Dried)	– 30 g
Asafoetida	– 10 g
Cumin seeds	– 10 g
Oil	– As required
Salt	– As required

Instant Mix

- Mix all ingredients thoroughly.
- Pack in airtight bags/containers.

Method

- Add water to the instant mix flour and knead it into soft dough.
- Make round balls and roll flat.
- Toast the vegetable rotti on a preheated pan.
- Serve hot with any curry or gravy.

4. MULTI MILLET KITCHADI MIX



Ingredients

Foxtail millet, Kodo millet, Little millet, Barnyard millet grits	– 500 g
Carrot (Dried)	– 150 g
Beans (Dried)	– 90 g
Peas (Dried)	– 60 g
Onion (Dried)	– 100 g
Scrapped coconut (Dried)	– 50 g
Green chillies (Dried)	– 50 g
Mustard seeds	– As required
Oil	– As required
Coriander leaves (Dried)	– As required
Salt	– As required

Instant Mix

- Mix all ingredients thoroughly.
- Pack in airtight bags/containers.

Method

- Allow water to boil.
- Add instant mix slowly with continuous stirring.
- Cook it for 15 -20 minutes.
- Serve hot with chutney.

5. MULTI MILLET PALAK LEAVES DOSA MIX



Ingredients

Foxtail millet, Kodo millet, Little millet, Barnyard millet flour	– 650 g
Black gram dhal flour	– 270 g
Palak leaves (Dried)	– 20 g
Fenugreek seeds	– 20 g
Cumin seeds	– 10 g
Chilli powder	– 20 g
Curry leaves (Dried)	– 10g
Salt	– As required

Instant Mix

- Mix all ingredients thoroughly.
- Pack in airtight bags/containers.

Method

- Add instant mix to a bowl, pour water and mix well.
- Allow batter to ferment for 2 hours.
- Apply oil on the hot dosa tava, pour batter and spread evenly.
- Cook till crisp dosa is obtained.
- Serve hot with chutney.

6. MULTI MILLET PALAK LEAVES RICE MIX



Ingredients

Foxtail millet, Kodo millet, Little millet, Barnyard millet rice	– 500 g
Palak leaves (Dried)	– 200 g
Oil	– 50 ml
Mustard seeds	– 20 g
Black gram dhal	– 20 g
Ginger (Dried)	– 30 g
Garlic (Dried)	– 30 g
Bengal gram dhal	– 20 g
Onion (Dried)	– 50 g
Green chillies (Dried)	– 80 g
Coriander leaves (Dried)	– As required
Curry leaves (Dried)	– As required
Turmeric powder	– As required
Salt	– As required

Instant Mix

- Mix all ingredients thoroughly.
- Pack in airtight bags/containers.

Method

- Allow water to boil.
- Add the contents of the mix to the boiling water.
- Cook till done and serve hot.

7. MULTI MILLET FENUGREEK LEAVES RICE MIX



Ingredients

Foxtail millet, Kodo millet, Little millet, Barnyard millet rice	– 500 g
Fenugreek (Methi) leaves (Dried)	– 200 g
Oil	– 50 ml
Mustard seeds	– 20 g
Black gram dhal	– 20 g
Ginger (Dried)	– 30 g
Garlic (Dried)	– 30 g
Bengal gram dhal	– 20 g
Onion (Dried)	– 50 g
Green chillies (Dried)	– 80 g
Coriander leaves (Dried)	– As required
Curry leaves (Dried)	– As required
Turmeric powder	– As required
Salt	– As required

Instant Mix

- Mix all ingredients thoroughly.
- Pack in airtight bags/containers.

Method

- Allow water to boil.
- Add the contents of the mix to the boiling water.
- Cook till done and serve hot.

8. MULTI MILLET UPPMA MIX



Ingredients

Foxtail millet, Kodo millet, Little millet, Barnyard millet grits	– 600 g
Onion (Dried)	– 150 g
Green chillies (Dried)	– 50 g
Curry leaves (Dried)	– 20 g
Oil	– 80 ml
Ginger (Dried)	– 50 g
Mustard seeds	– 10 g
Black gram dhal	– 20 g
Bengal gram dhal	– 20 g
Water	– As required
Salt	– As required

Instant Mix

- Mix all ingredients thoroughly.
- Pack in airtight bags/containers.

Method

- Allow water to boil.
- Add instant mix contents slowly with continuous stirring.
- Cook for 15 – 20 minutes. Serve hot with chutney

9. MULTI MILLET IDIYAPPAM MIX



Ingredients

Finger millet, Foxtail millet, Kodo millet, Little millet,
Barnyard millet flour – 1 kg
Salt – As required

Instant Mix

- Mix all ingredients thoroughly.
- Pack in airtight bags/containers.

Method

- Steam the contents of mix for five minutes.
- Blend steamed flour with water thoroughly and extrude in an idiyappam machine.
- Steam the extruded dough for 20 -25 minutes.
- Serve hot with coconut milk and sugar.

10. MULTI MILLET ADAI MIX



Ingredients

Finger millet, Kodo millet, Little millet, Barnyard millet flour	– 570 g
Red gram dhal flour	– 200 g
Green gram dhal flour	– 150 g
Chilli powder	– 20 g
Cumin seeds	– 20 g
Asafoetida	– 20 g
Curry leaves (Dried)	– 20 g
Oil	– As required
Salt	– As required

Instant Mix

- Mix all ingredients thoroughly.
- Pack in airtight bags/containers.

Method

- Add contents of instant mix to a bowl.
- Make batter with water and mix thoroughly.
- Allow batter to ferment for 2 hours.
- Apply oil on the dosa plate and spread the adai batter and cook.
- Serve hot with chutney.

11. MULTI MILLET HEALTH MIX



Ingredients

Wheat	- 200g	
Kodo millet	- 200g	
Little millet	- 200g	
Foxtail millet	- 200g	
Finger millet	- 200g	
Whole green gram	- 100g	
Whole Bengal gram		- 20g
Whole soya beans		- 20g
Sugar		- 100g
Peas (dried)		- 20g
Groundnut		- 20g
Almonds		- 20g
Cashew		- 20g
Dried ginger		- 5 g
Cardamom		- 2 g
Milk powder		- 20g

Preparation of malt

- Wash millet seeds thoroughly in water.
- Soak the seeds for 5 hours
- Drain the excess water and tie in a muslin cloth.
- Allow the seed to sprout at room temperature ($27\pm 3^{\circ}\text{C}$) for 24 hours
- Shade dry the germinated seeds for 48 hours.
- Roast the seeds at 120°C and allow it to cool.
- Grind the germinated seeds to fine flour.
- Pack the flour in air tight bags or containers.

